



Europäisches Patentamt  
European Patent Office  
Office européen des brevets

(11) Publication number:

**0 354 323  
A3**

(12)

# EUROPEAN PATENT APPLICATION

(21) Application number: 89110990.2

(51) Int. Cl.<sup>5</sup>: **C07F 9/655, A01N 57/16,  
C07H 11/04, //C07H15/18,  
A61K31/665**

(22) Date of filing: 16.06.89

(30) Priority: 12.08.88 US 232332

(43) Date of publication of application:  
14.02.90 Bulletin 90/07

(84) Designated Contracting States:  
**AT BE CH DE ES FR GB GR IT LI NL SE**

(89) Date of deferred publication of the search report:  
13.06.90 Bulletin 90/24

(71) Applicant: **AMERICAN CYANAMID COMPANY**  
1937 West Main Street P.O. Box 60  
Stamford Connecticut 06904-0060(US)

(72) Inventor: **DeVries, Vern Gordon**  
425 Fairview Street  
Ridgewood New Jersey 07450(US)  
Inventor: **Claus, Thomas Harrison**  
68 Montvale Avenue  
Montvale New Jersey 07645(US)  
Inventor: **Floyd Jr, Middleton Brawner**  
5 Babbling Brook Lane  
Suffern New York 10901(US)  
Inventor: **Ayral-Kaloustian, Semiramis**  
484 Carrollwood Drive  
Tarrytown New York 10591(US)

(74) Representative: **Wächtershäuser, Günter, Dr.**  
Tal 29  
D-8000 München 2(DE)

(54) **Antidiabetic phosphates.**

(57) Phosphates are disclosed which stimulate the enzyme fructose-1,6-bisphosphatase and inhibit the enzyme 6-phosphofructo-1-kinase, thereby lowering glucose levels in mammals. These phosphates may thus be used to treat hyperglycemia and/or diabetes. Processes for the synthesis of the phosphates are also disclosed.

**EP 0 354 323 A3**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number

EP 89 11 0990

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL5)
A	US-A-4 745 185 (B.E. MARYANOFF) * The whole document * ---	1,8,13	C 07 F 9/655 A 01 N 57/16 C 07 H 11/04 // C 07 H 15/18 A 61 K 31/665
A	EP-A-0 194 710 (LABORATORIOS VINAS S.A.) * The whole document * -----	1,8,13	
			TECHNICAL FIELDS SEARCHED (Int. CL5)
			C 07 F 9/00 C 07 H 11/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 12-03-1990	Examiner OUSSET J-B.
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			